

1. (Currently Amended) A gene transfer vector which contains

a) a transgene and

b) a nucleic acid sequence coding for a CD34 surface marker or a fragment of
the same or a variant of the same, wherein
~~characterized in that the surface marker is the CD34 surface antigen or a fragment of~~
~~the same or a variant of the same said surface marker or fragment or variant is~~
identifiable by a CD34 detection method.

2. (Currently Amended) The vector according to claim 1, wherein characterized in

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~~that the nucleic acid sequence codes for a surface marker comprising in accordance~~
~~with SEQ ID NO:2, 4 or 6, or for a fragment of SEQ ID NO:2, 4 or 6, or for a variant of~~
~~the same SEQ ID NO:2, 4 or 6, said fragment or variant being identifiable by a CD34~~
detection method.

3. (Currently Amended) The vector according to Claim 1, wherein characterized in
~~that the nucleic acid sequence comprises codes for the surface marker is the sequence~~
~~indicated in SEQ ID NO: 1, 3 or 5, or for a fragment of SEQ ID NO: 1, 3 or 5, a mutant~~
~~of SEQ ID NO: 1, 3 or 5, or a variant of SEQ ID NO: 1, 3 or 5 the same, said fragment or~~
~~mutant or variant coding for an amino acid sequence which is identifiable by a CD34~~
detection method.

4. (Currently Amended) The vector according to Claim 1, wherein characterized in
that it the vector is a retroviral vector.

5. (Currently Amended) The vector according to Claim 1, further comprising a
second characterized in that it contains a nucleic acid sequence coding for a
further second surface marker.

6. (Previously Amended) A vector with the accession no. DSM 13396.

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cont
7. (Currently Amended) A vector characterized in that it contains comprising a
nucleic acid sequence coding for an amino acid sequence the amino acid sequence
according to comprising SEQ ID NO:6, or for a fragment of SEQ ID NO:6, or for a
variant of the same SEQ ID NO:6, wherein said fragment or variant is identifiable by a
CD34 detection method.

8. (Currently Amended) A vector according to claim 7, characterized in that it
contains the comprising a nucleic acid sequence according to comprising SEQ ID NO:5,
or a fragment of SEQ ID NO:5, or a mutant of SEQ ID NO:5, or a variant of the same of
SEQ ID NO:5, wherein said fragment or mutant or variant codes for a CD34 surface
marker which is identifiable by a CD34 detection method.

9. (Currently Amended) An isolated host cell, ~~characterized in that it is transduced with comprising~~ a vector according to Claim 1.

10. (Currently Amended) The isolated host cell according to claim 9, wherein
said host cell characterized in that it is a human cell.

11. (Currently Amended) The isolated host cell according to claim 10, wherein
said cell characterized in that it is a T-lymphocyte.

Claims 12-34 (Canceled).